

## IV. ARCHITECTURAL DEVELOPMENT

### EARLY TEXTILE-MILL CONSTRUCTION

The earliest surviving textile mills in Providence date from the 1830s. Such structures as the Dyerville Mill (610 Manton Avenue) or the Waterman-Weybosset Mills (34 Dike Street) built during this period actually represent a second stage in textile-mill construction. Between 1790 and 1830, textile-mill construction changed significantly from the small, barnlike, wooden, spinning mill with a trap-door monitor set in a gable roof to the larger, stone structure with an exterior stairtower and a wider, continuous, clerestory monitor which provided more light. The exterior stairtower was also a significant improvement as a means of providing more interior work space and as a fire-control measure. While in early mills the interior stairwell created an air shaft through which fire spread rapidly, the exterior stairtower with heavy fire doors, which began to appear in the 1820s, separated this air shaft from the rest of the mill, thereby inhibiting the spread of fire from floor to floor. The exterior stairtower had other functions: freight doors at each level provided for the easy transfer of goods to and from the upper stories; it also provided a location for the factory bell and a focal point for architectural expression.

Zachariah Allen's Allendale Mill of 1822 in North Providence introduced some of these features and other innovative fire-prevention methods later adopted in new factory construction. The mill of 1822 incorporated the first heavy fire doors, sprinkler system, rotary fire pump, and copper-riveted fire hose to be used in American textile mills. In addition, Allen built a heavy fire wall separating the picker room (filled with highly flammable cotton fibers) from the rest of the mill and set the roof shingles in mortar. Allen's innovations in fire control led to his founding of the Manufacturers Mutual Fire Insurance Company, the first of the powerful factory mutual-insurance companies which led to standardized textile-mill construction by the late nineteenth century.

The most important innovation of this period was the change in the interior framing system from the use of



Fig. 51: Idealized view of Old Slater Mill (1793 and later). The earliest spinning mills were usually small, gable-roofed, frame structures with narrow eyebrow monitors to provide more light in the second story.



Fig. 53: Interior, Dyerville Mill (1830); 610 Manton Avenue. Showing use of heavy wooden columns, developed as a fire retardant.

light floor planks resting on numerous floor joists which allowed fire to spread rapidly, to the use of thick floor planking resting on heavy beams supported, in the center, by heavy wooden or cast-iron columns and, at the ends, by the masonry wall. An excellent example of slow-burning construction is the Dyerville Mill (1830) at 610 Manton Avenue.



Fig. 52: Commissary Building, Allendale Mill (c. 1822); 494 Woonasquatucket Avenue. The mill displays simplified Greek Revival details.



Fig. 54: The Waterman-Weybosset Mill (1835, altered 20<sup>th</sup> century). Showing original pedimented Greek Revival belfry crowning exterior stair tower. Courtesy of the [Rhode Island Historical Society](#); RHi x3 2849.

The incorporation of stylistic elements in mill construction was limited at this stage. However, some mills built at this time, including Zachariah Allen's Allendale Mill and John Waterman's Eagle Steam Mill, later the Weybosset Mills (34 Dike Street), had minimal Greek Revival exterior detailing.

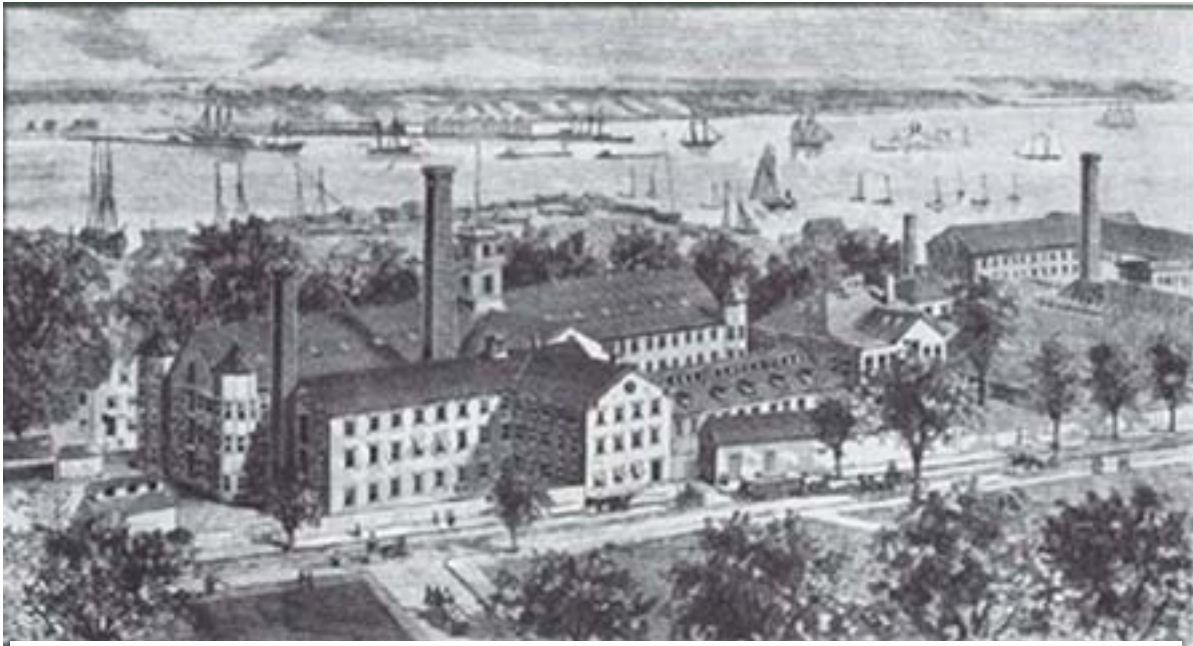


Fig. 55: Providence Machine Company (1846 and later); Allens Avenue; engraving 1886. Unusual features were four octagonal corner towers (one remains although its roof has been removed) and a two-tiered cupola (since removed) with a crenellated parapet.

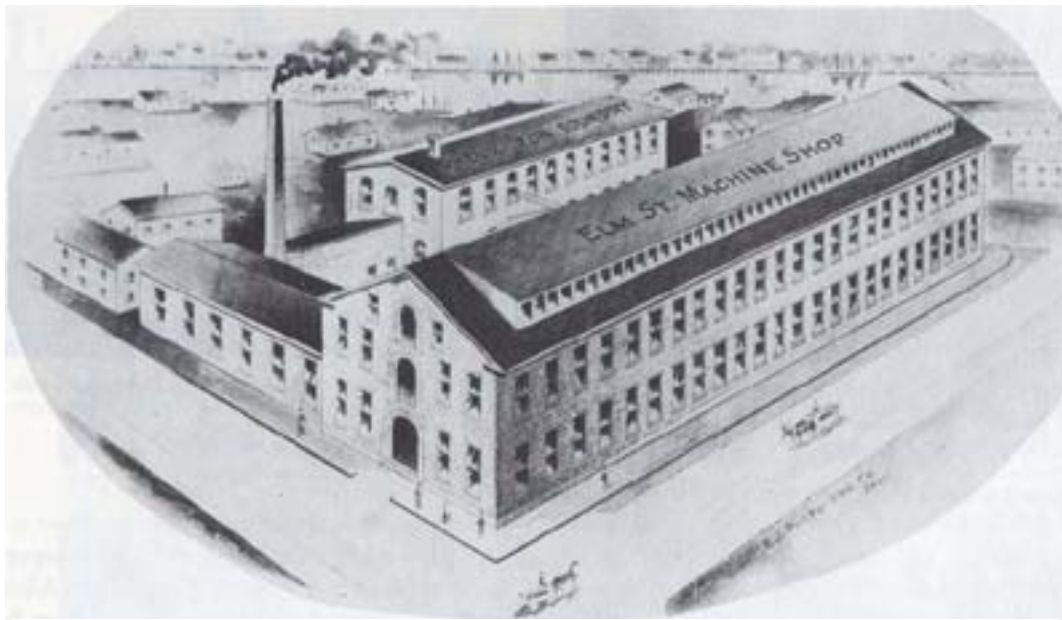


Fig. 56: Elm Street Machine Shop (1848); engraving, 1901. Distinctive features are the huge, arched, freight doors; random ashlar walls; and eyebrow monitor set in a gable roof. Courtesy of the [Rhode Island Historical Society](#): RHi x3 2833.

## EARLY MACHINE-SHOP AND FOUNDRY CONSTRUCTION

Because base-metal operations included several processes with entirely different requirements for space, light, and power, the typical early nineteenth-century base-metal company such as textile-machine and steam-engine manufacturers had several one- or two-story buildings instead of the single, large, textile mill of the early nineteenth century. Among the earliest machine shops remaining in Providence are those of the Providence Steam Engine Company (1845), the Phenix Iron Foundry (1848), and the Providence Machine Company (1846). Although built within three years of each other, these machine shops differ greatly in scale and style. The 1845 machine shop of the Providence Steam Engine Company is a simple, two-story, stuccoed-stone, gable-roofed structure, while the Elm Street Machine Shop is more imposing with its random-ashlar construction and vertical line of large, round-arch freight doors graduated in size, on each end of the building. The most unusual of the three machine shops, however, was the Providence Machine Company factory (37 Allens Avenue) with its Gothic Revival features (four octagonal castellated towers and a two-tiered cupola with a crenellated parapet). Most of these features have since been greatly altered or removed.

The casting process had more stringent requirements because of high temperatures produced by the furnaces. The typical foundry of the nineteenth century was a one-story structure with a gable or hip roof, a monitor, and several furnace chimneys. The monitor provided light and allowed for heat produced by the furnaces and chimneys to escape. The Corliss Steam Engine Works (148 West River Street) had a large casting operation housed in a one-story structure with a hip roof and a double monitor for additional light and ventilation



## CHANGES IN MILL CONSTRUCTION

Mill construction underwent many changes in the late nineteenth century as industries such as textile, base-metal, rubber, and silverware manufacturing expanded. Major changes were made in mill size, building configurations, roof forms, window forms, wall-construction systems, building materials, and style of decorative features. The length and width of new textile factories noticeably increased from an average length of less than a hundred feet and width of less than forty feet in the 1830s to an average length of over one hundred and fifty feet and width of just under fifty feet in 1860. The volume of textile mills as well as base-metal, rubber, and silverware factories continued to expand in the late nineteenth century.

A major change in mill-complex configuration occurred mainly outside of the textile industry. New factory complexes were often more symmetrical, following variations of the E-shaped plan and the hollow-square plan among others. Such complexes as the Nicholson File Company (23 Acorn Street), the Brown and Sharpe Manufacturing Company (245 Promenade Street) and the Gorham Manufacturing Company (333 Adelaide Avenue) provided an orderly system of intake and outflow, conserved space (especially important to the Nicholson File Company and the Brown & Sharpe Manufacturing Company-built in a heavily industrialized section of the city), and helped to present a uniform facade to the public.

Another major change which occurred gradually between 1850 and 1900 was the change in roof forms. The gable roof with clerestory monitor made way for several other roof forms, the most popular of which was the near-flat roof, made possible by the use of coal-tar or tar-paper coatings with tin or gravel which effectively made the roof water tight. An early example of this type of roof is the Brown & Sharpe Manufacturing Company factory (1872) designed by engineer Frederick Howe. Near-flat roofs appeared in the 1880s, 1890s, and early 1900s on new mill buildings, such as those of the United States Gutta Percha Paint Company, and as stories were added to older structures, such as the main building of the Wanskuck Mills.

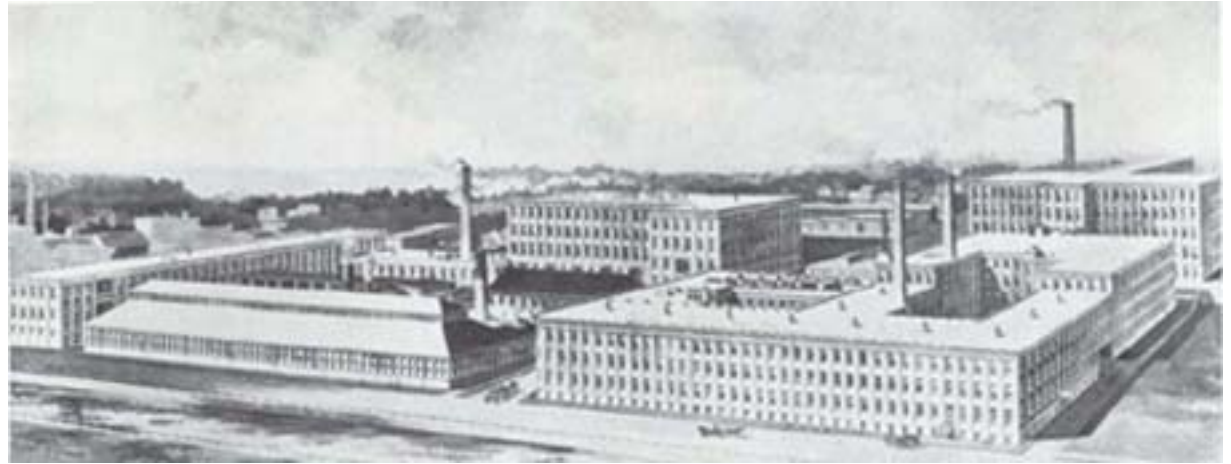


Fig. 57: Brown and Sharpe Manufacturing Company (1872 and later); 235 Promenade Street; illustration, 1901. Courtesy of the [Rhode Island Historical Society](#): RHi x3 2832.

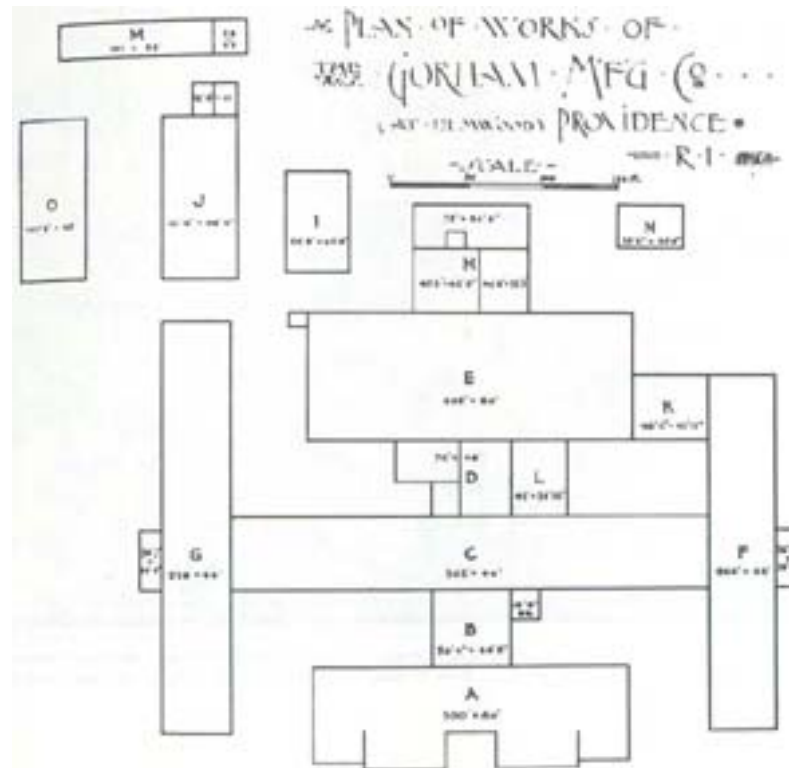


Fig. 58: Gorham Manufacturing Company works (1890); Adelaide Avenue; Frank Perry Sheldon, architect; drawing, 1889. Another geometrical plan. Courtesy of the [Rhode Island Historical Society](#): RHi x3 2849.

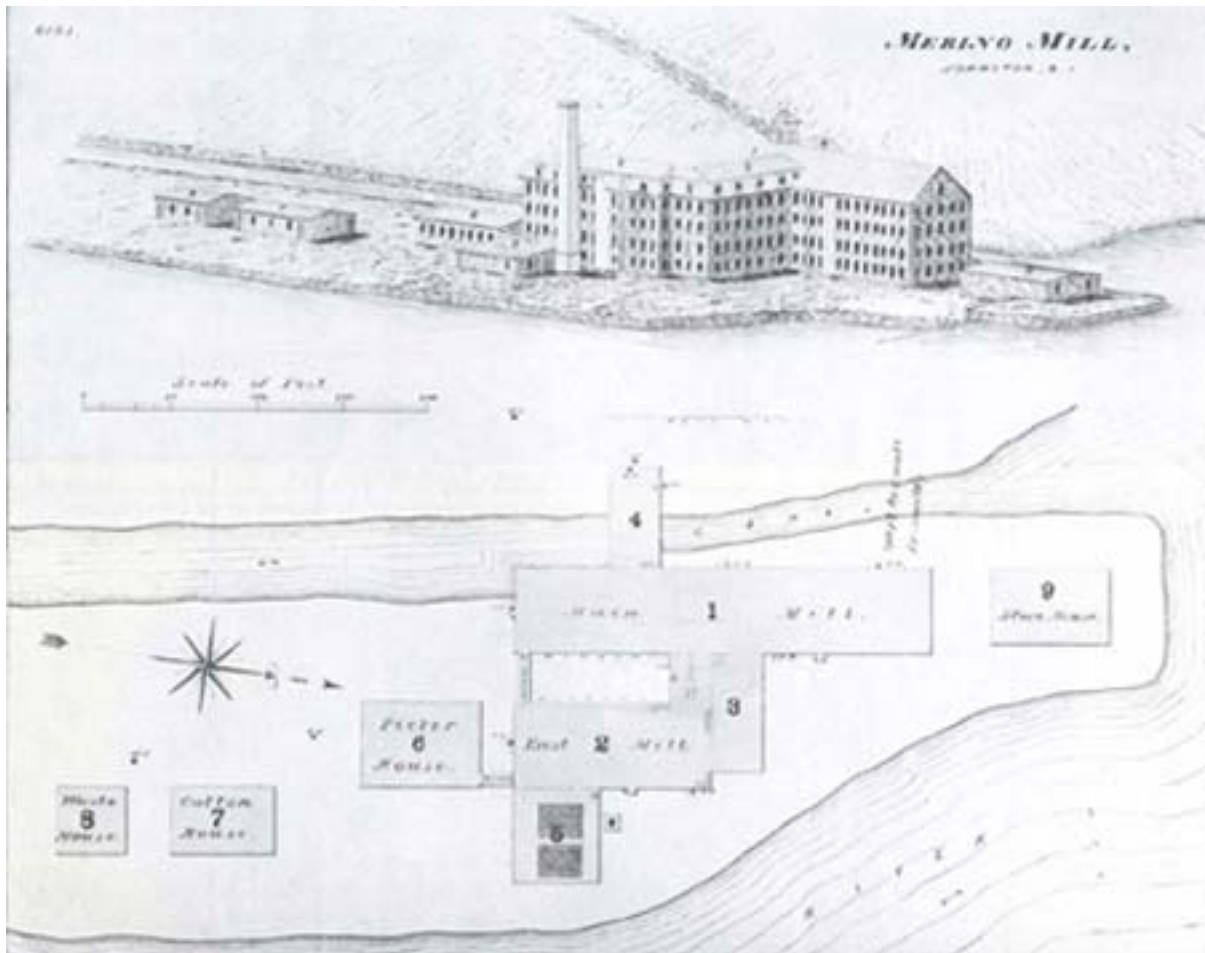


Fig. 59: Insurance plan (1880) of the Merino Mills, Ponagansett Avenue. The plan shows a fairly typical development of a rural, early-to-middle 19<sup>th</sup>-century, textile mill. The Merino Mills were built along the Woonasquatucket River to make use of the available water power; they were built to conform to the course of the river and to facilitate the transfer of power.

The near-flat roof also provided more light in the top story than the steeply pitched roof and thus eliminated the need for the clerestory monitor. The clerestory monitor continued to appear on other types of roofs, such as the gambrel roof. Other roof forms used in mills of the late nineteenth century were the jerkinhead gable roof (shown on the main building of the Allen Printworks at Dryden Lane) and the hipped roof.

Although the mansard roof came into vogue during the late nineteenth century, its use was discouraged by the factory-mutual insurance companies because of its high fire risks. The 1870s addition to the Merino Mills on Ponagansett Avenue has a mansard roof, as do the office buildings of the Nicholson File Company at Acorn Street and the Fletcher Manufacturing Company at Charles Street.

Another modification in mill construction was the increased use of the segmental-arch window form instead of the traditional flat lintel form. Because the segmental arch concentrated more of the wall load in the piers between the openings, it was possible to have larger window openings in what was still a load-bearing wall of uniform thickness.



59a. Window detail with flat lintel.

This concept was carried further by the use of non-load-bearing walls with thick supporting piers extending beyond the wall surface. Brick pier-and-spandrel construction permitted even larger windows than was previously possible. Probably the earliest textile mill in Providence to incorporate both of these concepts was the Riverside Mills (1862) on Aleppo Street.

The most visible change in Providence mills was the substitution of brick for stone in the construction of exterior walls. Brick was cheaper and its smaller size afforded greater flexibility in construction.

Another change which accompanied the increasing size of Providence's new mill complexes during the 1860s, 1870s, and 1880s was the incorporation of architectural detail intended to lend these large structures an air of grandeur. The exterior stair tower often served as a focal point for architectural embellishment. Good examples of ornately detailed exterior towers can be seen at the Atlantic Delaine Mills (120 Manton Avenue) and the Wanskuck Mills (725 Branch Avenue).



59b. Window detail with segmental arch.

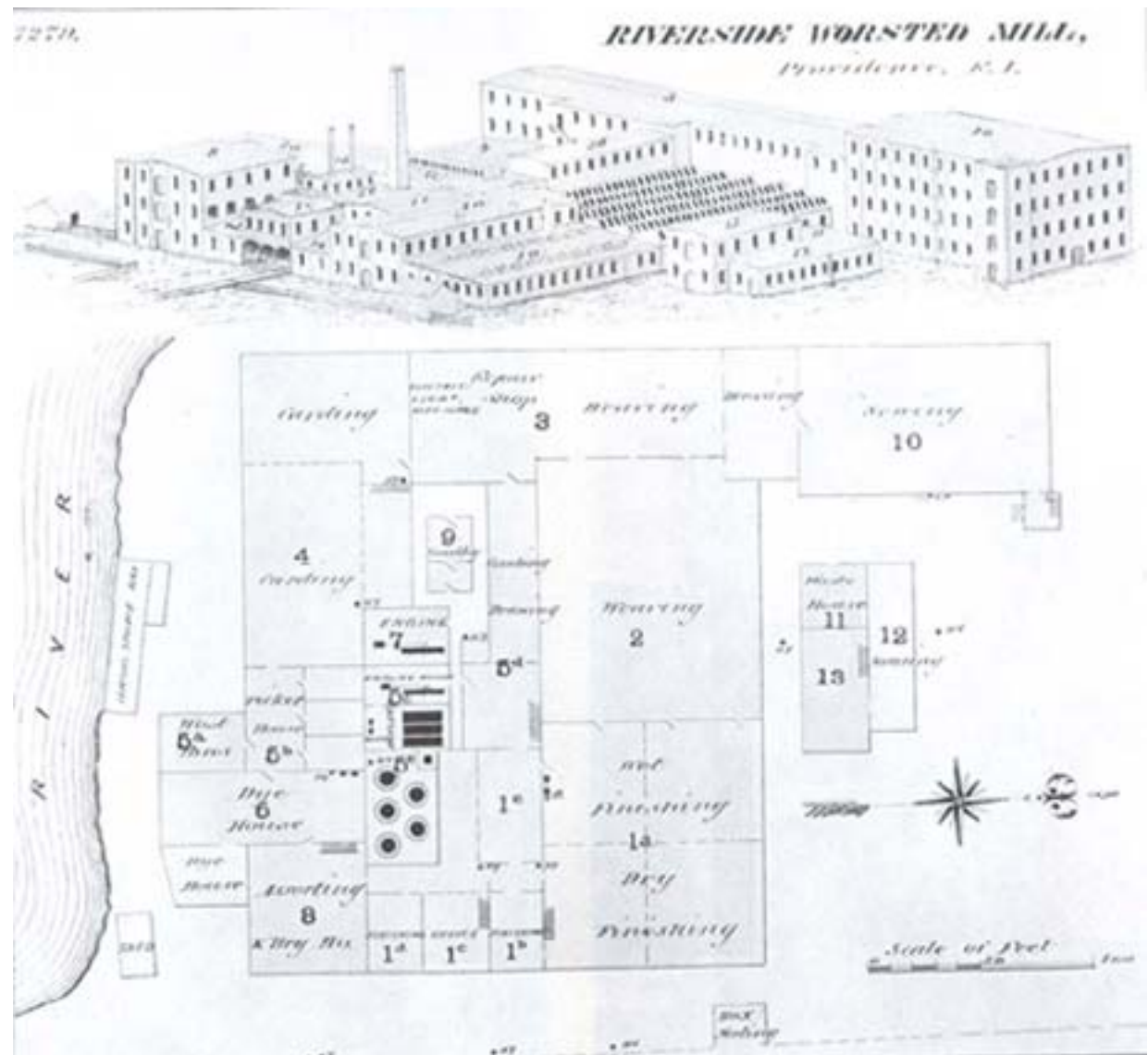


Fig. 60: Insurance plan (c. 1890) of the Riverside Mills, Aleppo Street. Built in the 1860s with numerous additions in the 1870s and 1880s, the Riverside Mills illustrate a typical, urban, late 19<sup>th</sup>-century, textile-mill configuration. Powered by steam rather than water, many urban mill buildings were arranged in rectangular clusters.





Fig. 61: Dyerville Mill (1835). This square-plan tower with a classically inspired belfry is sited at the narrow end of the structure, a typical early 19<sup>th</sup>-century configuration.

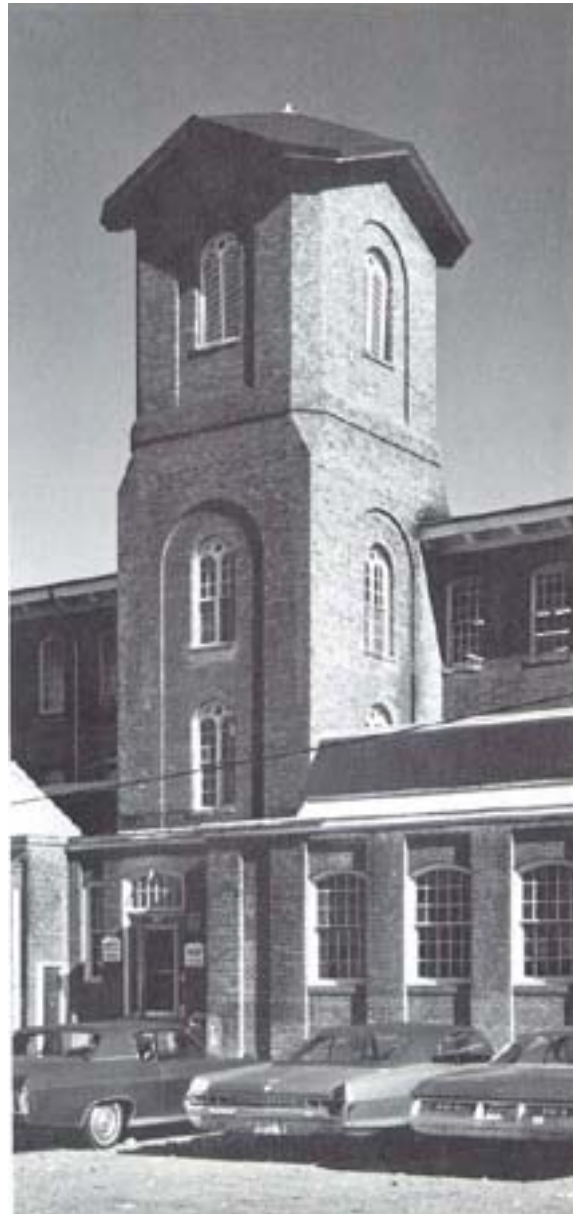


Fig. 62: Oriental Mill (c.1861). By the middle years of the 19<sup>th</sup> century, the tower had been moved to the center of the long side. The helm roof is rare in Providence.



Fig. 63: Wanskuck Mill (1862). The base of the lantern, with its trapezoidal wall planes, makes a smooth transition from the square base to the octagonal lantern. The round-head arch on the base is repeated in the lantern.



Fig. 64: Atlantic Mill (1863 et seq.). The round, paired towers are unusual, but the high domes on balustraded attics are formally kin to those of contemporary gasometers.



Fig. 65: Allen Print Works (c. 1874). The corbel cornice on this square tower was a popular treatment in late 19<sup>th</sup>-century industrial architecture, as were the grouped windows.



Fig. 66: Steere Mill (1884). The high mansard roof and the bold corner pilasters with corbel caps make this one of the most distinctive mill towers remaining in Providence.



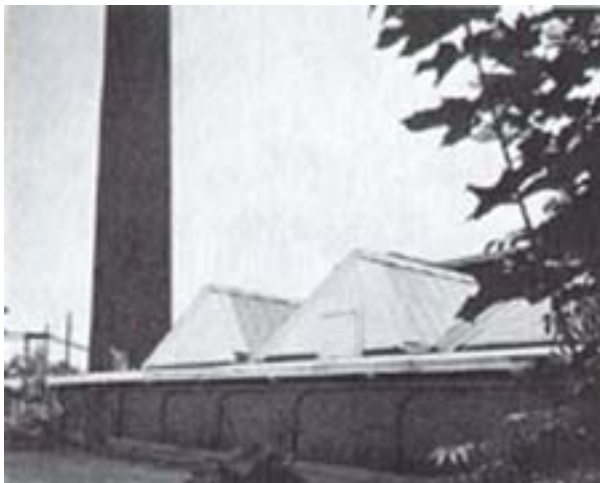


Fig. 67: Weave Shed, Steere Mill (1884); Wild Street. Showing sawtooth roof.

An alternative focal point for architectural expression was the mill office. The Nicholson File Company complex (23 Acorn Street) contains a small handsome mansard-roofed mill office surrounded by larger, simpler, gable-roofed buildings. The Fletcher Building (47 Charles Street), once surrounded by numerous manufacturing buildings, is another excellent mill office.

Not all mill complexes built during this period, however, had outstanding architectural features. A strong contrast is provided by the plain buildings of the Valley Mills (Eagle Street) and, opposite, the handsome Monohasset Mill (530-532 Kinsley Avenue) with a flank gambrel roof and an exterior stair tower (originally surmounted by a high, kipped roof).

By the turn-of-the-century, the standardized mill form began to dominate new construction. While some firms built ornately detailed structures, the characteristic early twentieth-century structure was a plain, wide, brick building with pier-and-spandrel walls, large segmental-arch windows, and a near-flat roof.

In textile complexes the one-story, sawtooth-roofed, weave shed began to appear by the turn of the century. The sawtooth roof, facing north, provided abundant, indirect, diffused light, necessary to the weaving process.

## THE JEWELRY-MANUFACTURING BUILDING IN THE LATE NINETEENTH AND EARLY TWENTIETH CENTURIES

The jewelry-manufacturing building provided the small shop equipped with power systems (first steam and later electric), required by most jewelry companies. Because the jewelry district was next to the downtown area where land was quite valuable by the late nineteenth century, jewelry-manufacturing buildings were often narrow multi-storied structures (sometimes filling the same size lot as a commercial block), rather than the long wide structures favored by the textile industry.

Most of these large, late nineteenth- and early twentieth-century structures were built of slow-burning construction with heavy load-bearing brick walls, segmental arch windows, and flat roofs. Good examples of this type of building are the Champlin Building (116 Chestnut Street), the Irons and Russell building (95 Chestnut Street), and the Waite-Thresher Building (10 Abbott Park Place). While steel-frame construction had been introduced by the early twentieth century, its use was not widespread in jewelry-factory construction during this period.

Reinforced-concrete construction, introduced in the early twentieth century, provided a maximum amount of strength by reinforcing concrete (which has compressive strength) with steel (which has tensile strength). Early reinforced-concrete construction employed thick steel and concrete beams which were not only expensive but also occupied almost as much interior space as heavy-timber construction.

Flat-slab construction provided more space than concrete-and-steel-beam construction because the floor was supported directly by columns. C. A. P. Turner's mushroom-column system of flat-slab construction (patented in 1905) was one of the earliest successful flat-slab structural systems. Reinforcing rods extend both directly and diagonally between the columns. In the mushroom capital additional reinforcing hoops were laid on the radial rods. Because the floor and columns were the only structural elements, 80 per cent the wall was left free for windows, providing a light airy interior.

Early examples of mushroom-column, flat-slab construction are the A. T. Wall Building (162 Clifford Street) and the Doran-Speidel Building (70 Ship Street). Later reinforced-concrete factories appeared in the jewelry district and other areas during the 1920s.

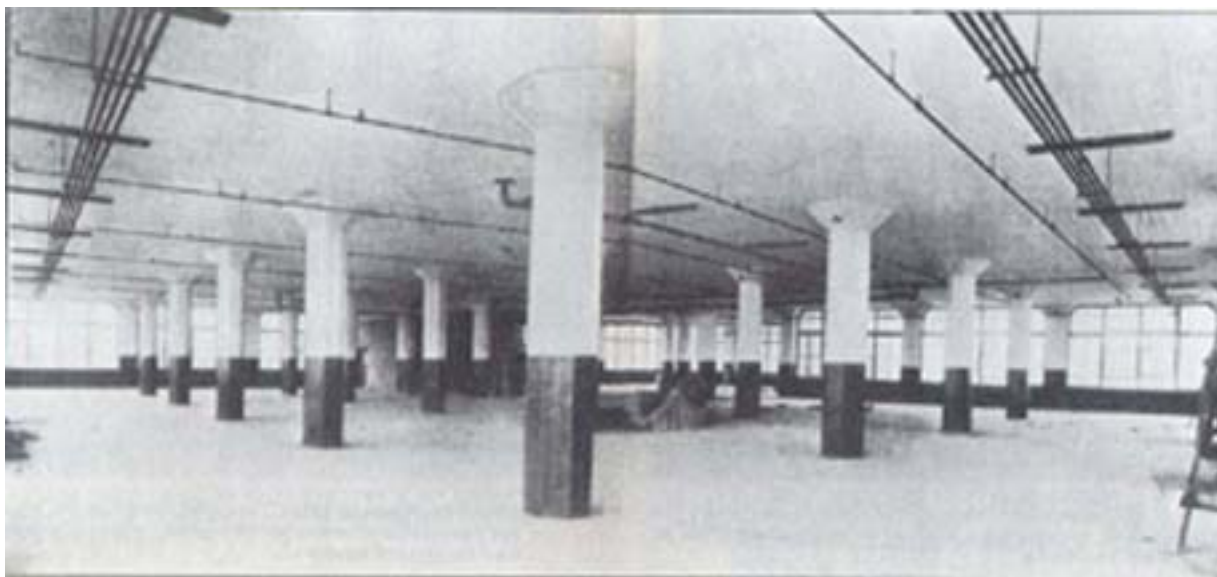


Fig. 68: Interior of the A. T. Wall Building. Showing mushroom column, flat-slab construction.



## MID-TWENTIETH-CENTURY INDUSTRIAL BUILDINGS

Mass-production, an early twentieth-century innovation, represented the impact of technology on both the manufacturing process and on the building that housed it. Changes in construction techniques—like mushroom-column, flat-slab structural systems—allowed for large, well-lit areas unhindered by bearing walls; such spatial arrangements facilitated the integration of various component processes required for the completion of goods, particularly complex ones like those made by Brown & Sharpe. Such an interdependence between the building and the process increased production efficiency and encouraged concern with increasing efficiency ever further.

By the mid-twentieth century, this awareness of the correlation between the building and the product changed building requirements for larger industrial firms. Efficiency experts had found horizontal movement of goods far more efficient than the generally used vertical circulation system. Thus, companies that had long occupied multiple-story structures began to move to more efficient, one-story plants. Congdon & Carpenter was an early example, moving from a five-story plant on North Main Street to a one-story, steel-frame structure on Promenade Street in 1930. The American Watch Case Company built a one-story brick building on Dexter Street in 1941. American Screw, Nicholson File, and Brown & Sharpe followed suit after World War II, but those companies, because of their size, were forced to suburban locations outside Providence.

Only after the Providence Redevelopment Agency undertook the redevelopment of the West River and Huntington Avenue areas into industrial parks was open space available to accommodate these spreading, one-story industrial buildings. These utilitarian structures characteristically housed offices in a one-story, masonry-and-glass section in front of a large, steel-frame, metal-sided production space. Both of these new industrial parks contain a number of these buildings.

## V. RE-USE OF INDUSTRIAL BUILDINGS

Providence retains a valuable resource for economic and cultural development in its numerous historic industrial buildings. Recently recognition of the potential of the historic industrial complex lining both sides of the Woonasquatucket River, first developed in the 1860s, has led to the formation of the Promenade Industrial Center Association. Their vision of a refurbished industrial park, along a clean Woonasquatucket River, offering ample parking, access to railroads, Route 95 and within walking distance of downtown, holds great promise for the city of Providence.

Historic industrial buildings offer several advantages to the developer of commercial, residential, or industrial space. Among such advantages are large areas of open space—which can be used as such, or easily divided into smaller dwelling units, offices, or shops—and heavy structural systems which met the load requirements of most residential, commercial, and industrial uses. Industrial buildings can be made more energy efficient

through traditional (and relatively inexpensive) methods such as caulking and weather stripping existing windows and doors and adding interior insulation where necessary. Moreover, construction or restoration of hydro-electric systems as well as the development of solar energy can be viable alternatives for some industrial rehabilitation projects.

Financial incentives for the rehabilitation of historic industrial buildings are provided by the Tax Reform Act of 1976 (see Appendix B), if the property is on the National Register of Historic Places, and by the low or moderate cost of acquiring many older industrial buildings.

While many factory buildings and complexes in Providence are partially utilized, few are totally vacant. Many of these buildings have historic or architectural value either by themselves or in their relationship with the surrounding area. The cultural value of these structures, as well as the financial incentives for their rehabilitation, should be stressed in industrial redevelopment, neighborhood revitalization, economic development, and preservation programs in Providence.

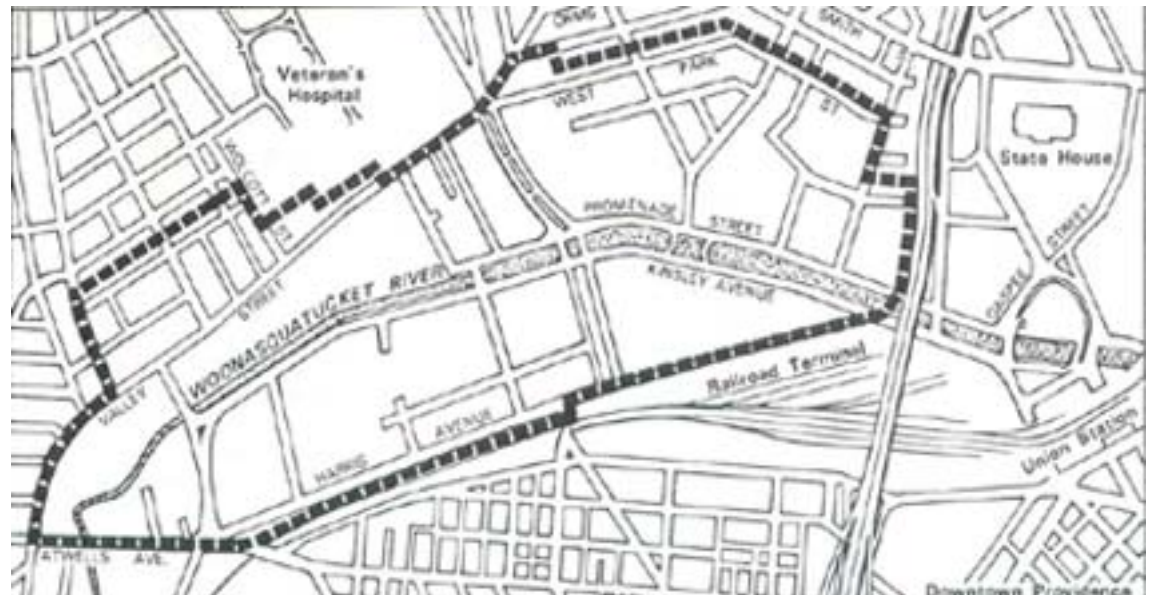


Fig. 69: Map of The Promenade Industrial Center Association Revitalization Area; drawing, 1981.

## APPENDIX A: NATIONAL REGISTER OF HISTORIC PLACES

The National Register of Historic places is a record maintained by the Heritage Conservation and Recreation Service, United States Department of the Interior, of structures, sites, areas, and objects significant in American history, architecture, archeology, and culture. Authorized by the National Historic Preservation Act of 1966 as the official inventory of the cultural and historic resources of the nation, it includes historical areas within the National Park System, National Historic Landmarks, federal properties nominated by federal agencies, and properties of state and local significance nominated by each state and approved by the Service. It is an authoritative guide for federal, state, and local governments and private groups and individuals everywhere, identifying those properties which are particularly worthy of preservation throughout the nation. Registered properties are protected from federally funded and licensed activities by a state and federal review process. Listing on the National Register is a prerequisite for eligibility for federal matching grants-in-aid funds which are administered within the state by the Rhode Island Historical Preservation Commission.

**The following industrial sites and properties have been given preliminary approval for nomination to the National Register of Historic Places by the Rhode Island Review Board.**

Jewelry Manufacturing District, bounded approximately by Point Street, South Street, Imperial Place, Claverick Street, 1-195, Ship Street, Elbow Street, Hospital Street; with Chestnut Street and Bassett Street forming cross spines

Wanskuck Mill Village Historic District, along both sides of Branch Avenue

Nicholson File Company, 23 Acorn Street

Gorham Manufacturing Company, Adelaide Avenue between Mashapaug Road and the Railroad

Riverside Mills, 25 Aleppo Street

Cowing and Heaton Mill/Geneva Mill, 1 Douglas Avenue

Atlantic Delaine Company/Atlantic Mills, 120 Manton Avenue

Merino Mills, 91 Ponagansett Avenue

**The following sites have been determined eligible for the National Register of Historic Places by the Secretary of the Interior.**

Merchants' Cold Storage Warehouse Company, 65 Harris Avenue Brown and Sharpe Complex, Promenade and Holden Streets

**The following properties are already entered in the National Register of Historic Places.**

Moshassuck Square Historic District, along Charles Street, Stevens Street, Smith Street, North Main Street, and Hewes Street

Jones Warehouses, 49-65 Central Street

Dyerville Mill, 610 Manton Avenue

New England Butt Company, 304 Pearl Street

Davol Rubber Company/Davol, Inc., Point Street and Eddy Street

## APPENDIX B: TAX INCENTIVES FOR HISTORIC PRESERVATION

The Economic Recovery Tax Act of 1981 contains an important incentive for the rehabilitation of historic income-producing properties. The new 25 percent investment tax credit for such projects replaces the old provisions of the 1976 Tax Reform Act. The Federal Tax Code has now been altered to remove the bias in favor of new construction.

## Changes to the tax law in the Economic Recovery Tax Act

1. A new accelerated cost recovery system (effective retroactive to January 1, 1981) permitting recovery of capital costs of real property over 15 years, straight line.

2. A three-tiered investment tax credit (ITC) for substantial rehabilitation of older and historic buildings. A 15 percent ITC is allowed to buildings over 30 years old, a 20 percent ITC to those over 40 years old, and a 25 percent ITC to certified rehabilitations of certified historic structures.

3. Repeal of the 10 percent investment tax credit for industrial and commercial rehabilitations as well as of the five-year amortization and accelerated depreciation provisions of the 1976 Tax Reform Act.

4. Repeal of the demolition disincentive that required straight-line depreciation for new construction on the site of a demolished historic structure, but retention of the provision that denies deduction of demolition costs as a business expense.

A "certified historic structure," qualifying for the 25 percent ITC, is defined in the law as a depreciable structure which is (A) listed in the National Register, (B) located in a National Register historic district and certified by the Secretary of the Interior as being of historic significance to the district, or (C) located in a local historic zoning district certified by the Secretary of the Interior to be controlled by design review procedures which will substantially achieve the purpose of preserving buildings of historical significance. Qualification for the 25 percent ITC includes certification of the rehabilitation as meeting the Secretary of the Interior's Standards for Rehabilitation. Certification of significance and rehabilitation are granted through an application process with the Rhode Island Historical Preservation Commission.

The Economic Recovery Tax Act of 1981 was signed into law by the President on August 13, 1981. It is possible that Congress will reassess some provisions of the Act during its first year of use. Please consult the Rhode Island Historical Preservation Commission for current information.



## APPENDIX C: GRANTS-IN-AID PROGRAM

The National Historic Preservation Act of 1966 established a program of matching grants-in-aid for the acquisition and development of properties listed on the National Register of Historic Places. Once a year, the Rhode Island Historical Preservation Commission accepts applications from individuals, public and private organizations, and state and local governmental units who own properties listed on the National Register.

Matching grants-in-aid can be used to acquire, protect, stabilize, rehabilitate, restore, or reconstruct National Register properties. Allowable work under the program includes exterior and interior restoration, structural repairs, installation or updating of utility systems, architectural fees, archaeology, historical research, and the installation of protective systems. New construction, furnishings, and modern landscaping are not allowable costs.

The Commission receives many more applications each year than it is able to fund. The applications are evaluated according to the annual national objectives and following state criteria: the architectural and historical significance of the property; the degree to which the proposed use and treatment respect the historical and architectural values of the buildings; the urgency of the proposed work; the public benefit of the project, both educational and economic; the degree to which the property is threatened; and the geographical location of the property. Grant applicants are urged to submit requests for the amount which they can actually match and realistically complete in one year. The Commission may fund up to half the cost of the project. The grants awarded by the Commission have generally ranged in size from \$3,000 to \$50,000.

Once the Commission has selected the projects to be funded, the grantees must submit professionally prepared specifications and drawings developed in accordance with the Secretary of the Interior's Standards for Historic Preservation Projects. The Heritage Conservation and Recreation Service in the Department of the Interior must

review and approve the individual projects before any work can begin.

Financial assistance for the acquisition and development of National Register properties is provided for the benefit of the general public. Therefore, upon accepting a grant, the property owner must sign a preservation easement which is recorded with the deed to the property. The easement states that the owner agrees to maintain the property and not make any visual or structural changes without prior approval from the Commission. The number of years this agreement is in effect depends on the amount of funds received. Unless the grant-supported work is visible from a public right-of-way, the property must be open for public view twelve days a year.

The Commission accepts applications during March and April each year. The applications are reviewed during May and June and the Commission selects the projects in July, after Rhode Island is notified of its tentative federal appropriation for the grants-in-aid program. Those selected are first awarded funds to have the necessary specifications and drawings prepared. Development grants are officially awarded once the specifications have been accepted by the Commission, the project has been approved by the Heritage Conservation and Recreation Service, and Congress has approved the federal budget. Project work must be completed within a year.

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The Commission's ability to award grants-in-aid depends upon the availability of federal funding, and varies from year to year. Those interested in applying for grants should contact the Commission for further information.

## APPENDIX D: SURVEY FORM AND MAPS

A standard survey form, the "Historic Building Data Sheet," has been prepared by the Preservation Commission for use throughout the state. On the form a property is identified by plat and lot numbers, street number, ownership at the time the survey was conducted, present use, neighborhood land use, and a photograph.

Each property is also identified by one or more broad period time-frames which denote the original construction date and date(s) of major additions or alterations: P = prehistoric (before 1636), C = Colonial (1700-1800), F = Federal (1775-1840), GR = Greek Revival (1825-1910), EV = Early Victorian (1840-1870), LV = Late Victorian (1865-1910), ET = early twentieth century (1900-1940), MT = mid-twentieth century (1940-1975), and LT = late twentieth century (1975-present).

The "COMMENTS" section is used for brief notations regarding a building's style, structure, details, and architectural significance. The "HISTORY & SOURCES" section includes notes on individuals, organizations, and events associated with the building; dates and nature of significant additions or alterations; selected bibliographical and pictorial references; and identification of the building on historical maps and in street directories.

The four "EVALUATION" sections are intended as tools for quick reference to appraise various aspects of a property's preservation value. In general, the key factors that indicate the reason for preserving structures have to do with their visual significance, that is, "Architectural value" and "Importance to neighborhood." Other factors, such as condition, should be seen as pluses. Nor should a low historical rating be allowed to militate against the preservation of buildings deemed of architectural significance or those important in the neighborhood context.

The evaluation of a structure's exterior physical condition is rated on a 0, 2, 3, 5 scale, without regard to its architectural merits. Buildings assigned "5" are in excellent physical condition (original or altered).

Those rated "3" are in good condition, with only slight evidence of the need for improvement, such as repainting or minor repairs. Structures rated "2" are in fair condition, and may require substantial work, such as resheathing, or repairs to porches, fenestration, and so on. Buildings rated "0" are in poor physical condition, and probably require extensive work if they are to be retained. These ratings are based upon observation of the exterior only and do not reflect interior appearance or structural, electrical, and mechanical conditions.

The evaluation of the grounds, either of a building or a site, is rated on a 0, 1, 2 scale. Those that are in good condition and are a visual asset to the environment are assigned "2." The "1" rating indicates that the grounds do not detract from the surrounding area. The "0" rating applies to grounds that have a negative impact on the environs.

The evaluation of the neighborhood's physical condition is based on a 0, 2, 3, scale. "Neighborhood," in this context, denotes the immediate area surrounding a surveyed property and does not necessarily reflect physical features such as street blocks or demographic boundaries. Neighborhoods rated "3" are characterized by a uniformly high standard of maintenance of both buildings and grounds. Those assigned a "2" have well kept properties in much of the area but also have sections where the need for improvement is readily apparent. The "0" rating is used for areas which, for the most part, detract from the visual quality of the community as a whole.

Architectural ratings are assigned on a 0, 10, 20, 30, 38 scale. The "38" rating is reserved for a generally small number of buildings deemed of outstanding importance to the community and which, in most cases, are also of at least regional significance. The "30" rating indicates a structure of meritorious architectural quality, well above the local norm. The "20s" and "10s" constitute the majority of buildings surveyed. They are of local value by virtue of interesting or unusual architectural features or because they are good representatives of building types. The "0" rating applies to properties which have a decisively negative effect on the neighborhood.

Historical value is also rated on a 0, 10, 20, 30, 38 scale. The "38" rating is assigned to properties associated with individuals (including architects), organizations, or events which are of historic significance on the national level. Those of regional or state importance are rated "30." The "20" rating applies to entries related to noteworthy local developments and also includes buildings which, by virtue of their age, are considered to make a major contribution to the community's historic environment. The "10" rating denotes limited local historical value. The "0" rating is used to designate properties of no known historic interest at the present time.

Data from the survey sheets has been transferred to a series of detailed maps, drawn on a 1" = 80' scale. These maps depict every structure, regardless of date or historical importance, along with the address, a code for period or style, and the architectural and historical ratings. They make information pertaining to the cultural resources of Providence's industrial sites available for all planning purposes. Copies of these maps are on file at the Rhode Island Historical Preservation Commission office and at the Providence Department of Planning and Urban Development.

HISTORIC BUILDING DATA SHEET RHODE ISLAND STATEWIDE SURVEY		COUNTY: PROVIDENCE	
FILE NO. _____ PLAT 22 LOT 220 LOT _____		STREET: PROVIDENCE	
ADDRESS: 116 STREET		MAP: 116 STREET	
OWNER: Industrial National Bank		and NE	
PRESENT USE: 1. Fan _____ 2. Fan _____ 3. Mill _____ 4. Saw _____ 5. Saw _____ 6. Saw _____ 7. Mill _____ 8. Mill _____ 9. Mill _____ 10. Other _____		RELATIVE NO. 1-P 2-13, 9	
NEIGHBORHOOD LAND USE: 1. Fan _____ 2. Fan _____ 3. Mill _____ 4. Saw _____ 5. Saw _____ 6. Saw _____ 7. Mill _____ 8. Mill _____ 9. Mill _____ 10. Other _____		KNOWN AS: 116 Street Machine Shop	
PERIOD/STYLE: P F GR (EX) IS ST WT LT		ARCHITECT: _____	
DESCRIPTION: Single _____ 2 1/2 _____ Roof: gable (Flare _____ and _____ cross _____) General: (Flare _____ and _____ cross _____) hip _____ Roofline: _____ gable _____ flat _____ Other: _____		DATE & SOURCE: 1888 (Magazine)	
Foundation: _____ stone _____ brick _____ Shingle _____ modern comp _____		ORIGINAL USE: machine shop	
Alterations: _____ good _____ poor _____ Have side _____ typical of its area _____		ORIGINAL OWNER: Phoenix Iron Foundry	
COMMENTS: random brick walls; large, round-arch freight doors, graduated in size in each story of gable end; 3-story, brick, gable roof addition (ca 1885); 3-story, flat-roof, brick addition (1907) made by Providence Gas Burner Company		HISTORY & SOURCES: Phoenix Iron Foundry manufactured bleaching, drying, and printing machines, one of the first companies in Providence (ca 1880). Early works dismantled in early twentieth cen- tury for expansion of MICO plant at 160 and South Streets. Bapine, p. 626 Greene, p. 267 Hall, p. 282 Fox Assessor's Records P.I.F. Aug 1884 P. Gas Burner Co. Jul 1905 Gen'l Electric Co. May 1912 U.S. Real Estate Co. Dec 1913 U.S.L. Corp. Dec 1941 Coca Inc. Nov 1944 America Luggage Works Inc. May 1974 Industrial North Bank Aug 1974	
SURVEYOR: L.F. _____		ARCHITECTURAL value 38 (30) 20 10 0 34	
SUPERVISOR: WOK _____		Importance to neighborhood (14) 10 5 0	
DATE: _____		Historical value 38 30 (20) 10 0 2	
		Total Score	

Fig. 70: Sample survey form.